UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,851	01/14/2000	Rustin W. Allred	TI-29746	6201

23494 7590 05/05/2004

TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER	
CHANG, EDITH M	
ART UNIT	**PAPER NUMBER**
2634	10

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/481,851	Applicant(s) ALLRED, RUSTIN W.	
	Examiner Edith M Chang	Art Unit 2634	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *see the attachment*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: *3,11,12,17,18,21 and 22*.

   Claim(s) objected to: *4-7,9,10,13-16,19 and 20*.

   Claim(s) rejected: *1-2,8*.

   Claim(s) withdrawn from consideration: _____.

8. ☒ The drawing correction filed on *08 October 2003* is a)☒ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

Response to Arguments

Applicant's arguments filed April 5 2004 have been fully considered but they are not persuasive.

Argument:

Kaku does not discloses or suggest the presently claimed invention including the data processor that can determine filter parameters using algorithmically defined relationships among discrete center frequency data, discrete bandwidth data, and discrete gain data such that the plurality of equalizing filters can be re-characterized by the filter parameters in claim1.

Response:

Kaku discloses the data processor that determine filter parameters such that the plurality of equalizing filters can be recharacterized by the filter parameters (Abstract, column 2 lines 20-40). The filter parameters inherently are determined using relationships of the filter characteristics among in time domain and frequency domain. Lane et al. teaches/lists the filter parameters: the center frequency, bandwidth and gain data (column 1 lines 37-50 where have center frequency, column 5 lines 19-30, column 8 lines 5-10, wherein the boost/cut levels affect the gain and in turn of widening/narrowing the *bandwidth* of the filter as the characteristics/inherences of the filter, as shown in FIG.6, column 8 lines 41-55). As Kaku using the filter parameters to equalizing the signal on the subscriber's line, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the equalizer data processing system taught by Lane et al. implemented in Kaku et al.'s computing means to reduce

noise components, compensate for acoustical shortcomings, etc. (column 1 lines 47-58) so the filters can be recharacterized substantially without audible artifacts and to produce an actual filter response that closely corresponds with the desired filter response (column 3 lines 38-42, column 1 lines 50-58). The combination/modification improves the equalizer response/performance.

Argument:

Kaku does not disclose the translating means.

Response:

Lane et al. teaches the translating means for translating a desired bandwidth and a desired peak gain (FIG.2, column 3 lines 43-50, a software program used to execute the methodology; 126 FIG.3, column 3 lines 43-50, column 4 lines 9-28 wherein the parameters translated/adjusted) and generating the variable multiplier parameter such that the plurality of digital equalizing filters can be recharacterized with a desired multiplier (FIG.6, FIG.3, FIG.4 wherein the adjusted filter control parameters are provided to the filter). With the Lane et al.'s teaching to translate the filter parameters, the Kaku's processor does the translating/adjusting the filter parameters.

Argument:

Lane does not discloses or suggest the data processor that can determine filter parameters using algorithmically defined relationships among the discrete center frequency data, discrete bandwidth data, and discrete gain data such that the plurality of equalizing filters can

recharacterized by the filter parameters in claim1, and the translating means for translating the desired bandwidth and the desired peak gain and generating variable multiplier parameter such that the plurality of digital equalizing filters can be re-characterized in claim 8.

Response:

Lane teaches the data processor (228 FIG.8/262 FIG.9) that can determine filter parameters using algorithmically defined relationships among the discrete center frequency data, discrete bandwidth data, and discrete gain data (column 1 lines 37-50 where have center frequency, column 5 lines 19-30, column 8 lines 5-10, wherein the boost/cut levels affect the gain in turn widening/narrowing the *bandwidth* of the filter as the characteristics/inheres of the filter, as shown in FIG.6, column 8 lines 41-55) such that the plurality of equalizing filters can recharacterized by the filter parameters, the translating means for translating a desired bandwidth and a desired peak gain (FIG.2, 126 FIG.3, column 3 lines 43-50, column 4 lines 9-28 wherein the parameters translated/adjusted) and generating the variable multiplier parameter such that the plurality of digital equalizing filters can be recharacterized with a desired multiplier (FIG.6, FIG.3, FIG.4 wherein the adjusted filter control parameters are provided to the filter).

STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600